

APPENDIX

AMENDMENT TO THE CLAIMS

Claims 1-9 (Canceled).

Claim 10 (Previously presented): A method for protecting a porcine animal against infection or disease caused by *Mycoplasma hyopneumoniae* comprising administering to said porcine animal a vaccine composition by intramuscular, subcutaneous, oral or intranasal route, wherein said vaccine comprises an immunizing amount of a *Mycoplasma hyopneumoniae* bacterin, an adjuvant mixture comprising a polyacrylic acid polymer and a mixture of metabolizable oil and a polyoxyethylene-polyoxypropylene block copolymer and a pharmaceutically acceptable carrier, wherein said vaccine composition, after a single administration, elicits protective immunity in said porcine animal against said *Mycoplasma hyopneumoniae* infection or disease for a duration of six months after the single administration.

Claim 11 (Previously presented): The method of claim 10, wherein the immunizing amount of said bacterin is about 1×10^8 to 3×10^{11} *Mycoplasma hyopneumoniae* DNA Cell equivalents (MHDCE)/mL.

Claim 12 (Previously presented): The method according to claim 11 wherein the immunizing amount of said bacterin is about 1×10^9 to 3×10^9 MHDCE/mL.

Claim 13 (Canceled).

Claim 14 (Previously presented): The method of claim 10, wherein the adjuvant mixture consists of a polyacrylic acid polymer and a mixture of metabolizable oil that comprises one or more terpene hydrocarbons and a polyoxyethylene-polyoxypropylene block copolymer present in a final concentration of about 1-25% v/v.

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Claim 15 (Previously presented): The method of claim 14, wherein the polyacrylic acid polymer of the adjuvant mixture is a polymer of acrylic acid cross-linked with polyallylsucrose having the chemical formula $(\text{CH}_2\text{CHOOOH})_n$.

Claim 16 (Previously presented): The method of claim 14, wherein the metabolizable oil of the adjuvant mixture is a terpene hydrocarbon selected from the group consisting of squalene and squalane.

Claim 17 (Currently amended): The method as in any of ~~any~~ claims 10-12 or ~~and~~ 14-16, further comprising coadministering at least one additional bacterin selected from the group consisting of *Haemophilus parasuis*, *Pasteurella multocida*, *Streptococcus suis*, *Actinobacillus pleuropneumoniae*, *Bordetella bronchiseptica*, *Salmonella choleraesuis* and leptospira.

Claim 18 (Canceled).